	INN	2222222222	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
	INN	2222222222	PPPPPPPPPPPP
	INN		
		CCC	PPP PPP
	INN	CCC	PPP PPP
	INN	CCC	PPP PPP
	INN	CCC	PPP PPP
	INN	CCC	PPP PPP
NNNNN N	INN	CCC	PPP PPP
NNN NNN N	INN	CCC	PPPPPPPPPPPP
NNN NNN N	INN	CCC	PPPPPPPPPPP
	INN	CCC	PPPPPPPPPPPP
NNN NNNN		CCC	PPP
NNN NNNN		ččč	PPP
NNN NNNN		ččč	PPP
	NN	ččč	PPP
	NN	ččč	PPP
	NN	ččč	PPP
	NN	CCCCCCCCCCC	PPP
	NN	cccccccccc	PPP
NNN N	NN	2222222222	PPP

NN NN NN NN NN NN NN NN NN NN NN NN	MM MM MMM MMM MMMM MMM MMM MM MM MM MM M	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	RRRRRRRR RR	YY YY YY YY YY YY YY YY YY YY YY YY YY Y
111111111111111111111111111111111111111		\$				

Version: 'V04-000'

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!++

NMAHEAD.B32

Define \$EQULST macro to make library from the NMALIBRY.B32 file
This source is taken from the following source:

++

UTLDEF.B32 - UTILITY DEFINITION MACROS FOR BLISS PROCESSING OF STARLET DEFINITION MACROS.

MACRO TO GENERATE EQULST CONSTRUCTS.

MACRO

SEQUEST(P,G,I,S)[A]=

XNAME(P,GET1ST_A) =

XIF NUL2ND A

XTHEN (I) # %COUNT*(S) ! ASSUMES I, S ALWAYS GENERATED BY CONVERSION PROGRAM

XELSE GET2ND_A

XFI %,

GET1ST_(A,B)=
A X
GET2ND_(A,B)=
B X,

! KNOWN NON-NULL

0058 0059 0060 0061 0062 0063 NUL2ND (A,B)= %;

End of NMAHEAD

```
literal NMASM_OPT_ACC = 128;
literal NMASM_OPT_REA = 128;
literal NMASC_SYS_RST = 1;
literal NMASC_SYS_RSX = 2;
literal NMASC_SYS_TOP = 3;
literal NMASC_SYS_VMS = 4;
literal NMASC_SYS_RT = 5;
```

0071

0072 0073

0078

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0080

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0099 0100

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0102 0104

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0109 0110

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0118

0119 0120 ! *** MODULE SNMADEF ***

literal NMA\$C_OBJ_NIC = 19;

literal NMA\$C_FNC_LOA = 15; literal NMA\$C_FNC_DUM = 16; literal NMA\$C_FNC_TRI = 17; literal NMA\$C_FNC_TES = 18; literal NMA\$C_FNC_CHA = 19; literal NMA\$C_FNC_CHA = 20; literal NMA\$C_FNC_ZER = 21; literal NMA\$C_FNC_ZER = 21; literal NMA\$C_FNC_SYS = 22;

literal NMASM_OPT_ENT = 7; literal NMASM_OPT_CLE = 64; literal NMASM_OPT_PER = 128; literal NMASM_OPT_INF = 112; literal NMASC_OPINF_SUM = 0; literal NMASC_OPINF_STA = 1; literal NMASC_OPINF_CHA = 2; literal NMASC_OPINF_COU = 3; literal NMASC_OPINF_EVE = 4;

Object type

Option byte

test

Function codes

Entity types. This numbering scheme must be used in non-system-specific NICE messages. (See below for conflicting system-specific entities).

```
literal NMASC_ENT_NOD = 0;
literal NMASC_ENT_LIN = 1;
literal NMASC_ENT_LOG = 2;
literal NMASC_ENT_CIR = 3;
literal NMASC_ENT_MOD = 4;
literal NMASC_ENT_ARE = 5;
                                                                                                                                             Node
                                                                                                                                             Line
                                                                                                                                             Logging
                                                                                                                                             Circuit
                                                                                                                                             Module
                                                                                                                                             Area
```

System-specific (function 22) entity types. This numbering scheme

```
for objects must be used in any entity type in system-specific NICE
                                messages.
                         literal NMA$C_SENT_ALI = 3:

literal NMA$C_SENT_OBJ = 4:

literal NMA$C_SENT_PRO = 5:

literal NMA$C_SENT_SYS = 6:

literal NMA$C_SENT_LNK = 7:

literal NMA$C_SENT_LNK = 7:

literal NMA$C_SENT_LNK = 7:

literal NMA$C_ENT_ADJ = -4:

literal NMA$C_ENT_ACT = -2:

literal NMA$C_ENT_ACT = -2:

literal NMA$C_ENT_ADD = 0:

literal NMA$C_ENT_ADD = 0:

literal NMA$C_ENT_ALL = -3:

literal NMA$C_ENT_ALL = -3:
                                                                                                                     Alias
                                                                                                                    Object
                                                                                                                    Process
                                                                                                                    System
                                                                                                                    Adjacent
Active
                                                                                                                    Known
                                                                                                                    Node address
                                                                                                                    ALL
                                                                                                              ! Loop
                               Logging sink types
                          literal NMA$C_SNK_CON = 1;
literal NMA$C_SNK_FIL = 2;
literal NMA$C_SNK_MON = 3;
                                                                                                               ! Console
                                                                                                              ! File
0141
0142
0143
                                                                                                              Monitor
                                Counter data type values
 0144
                         literal NMA$M_CNT_TYP = 4095;

literal NMA$M_CNT_MAP = 4096;

literal NMA$M_CNT_WID = 24576;

literal NMA$M_CNT_COU = 32768;

literal NMA$M_CNT_WIL = 8192;

literal NMA$M_CNT_WIH = 16384;

literal NMA$S_NMADEF = 2;

macro NMA$V_OPT_ENT = 0,0,3,0 %;

literal NMA$S_OPT_ENT = 3;
0145
0146
0147
0148
0149
0150
0151
0152
0153
0154
0155
0156
0157
0158
                                                                                                              ! Entity type
                                       change parameter
                          macro NMA$V_OPT_CLE = 0.6.1.0 %;
macro NMA$V_OPT_PER = 0.7.1.0 %;
                                                                                                                     Clear parameter
                                                                                                               ! Permanent parameters
 0160
                                       common to change parameter or read information
 0161
 0162
                                       read information
0164
0165
0166
0167
                          macro NMA$V_OPT_INF = 0,4,3,0 %;
literal NMA$S_OPT_INF = 3;
macro NMA$V_OPT_ACC = 0,7,1,0 %;
                                                                                                              ! Information type mask
                                                                                                               ! Access control included
0168
0169
0170
0171
0172
0173
0174
                                       zero
                          macro NMA$V_OPT_REA = 0,7,1,0 %;
                                                                                                              ! Read and zero
                                 System types
                          macro NMASV_ENT_EXE = 0,7,1,0 %;
                                                                                                              ! Executor indicator flag for response messages
                           ! Entity identification format types
```

```
0178
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0190
0191
0192
0193
                                                                                                macro NMA$V CNT TYP = 0.0.12.0 %;

literal NMA$S CNT TYP = 12;

macro NMA$V CNT MAP = 0.12.1.0 %;

macro NMA$V CNT WID = 0.13.2.0 %;

literal NMA$S CNT WID = 2;

macro NMA$V CNT COU = 0.15.1.0 %;

macro NMA$V CNT WIL = 0.13.1.0 %;

macro NMA$V CNT WIL = 0.14.1.0 %;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Type mask
Bitmapped indicator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Width field mask
Counter indicator
Width field low bit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Width field high bit
                                                                                                                             Node area and address extraction
                                                                                               literal NMASM PTY TYP = 32767;
literal NMASC PTY MAX = 15;
literal NMASM PTY CLE = 63;
literal NMASM PTY MUL = 64;
literal NMASM PTY COD = 128;
literal NMASM PTY CMU = 192;
literal NMASM PTY NLE = 15;
literal NMASM PTY NLE = 15;
literal NMASM PTY NTY = 48;
literal NMASM PTY ASC = 64;
literal NMASC NTY DU = 0;
literal NMASC NTY DU = 0;
literal NMASC NTY D = 3;
! NLE values (length of number):
literal NMASC NLE IMAGE = 0;
literal NMASC NLE IMAGE = 0;
literal NMASC NLE BYTE = 1;
literal NMASC NLE BYTE = 1;
literal NMASC NLE LONG = 4;
literal NMASC NLE LONG = 4;
literal NMASC NLE LONG = 4;
literal NMASC NLE QUAD = 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                           ! Maximum fields within coded multiple
  0194
0195
0196
0197
0198
0199
                                                   Unsigned decimal
                                                                                                                                                                                                                                                                                                                                                                                                                                          ! Signed decimal ! Hexidecimal
02001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hexidecimal
                                                                                                                                                                                                                                                                                                                                                                                                                                             Octal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Image field (byte-counted)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Byte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Word
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Longword
                                                                                                                            Define standard values for the DATA TYPE byte
                                                                                                literal NMASC PTY AI = 64;

literal NMASC PTY HI = 32;

literal NMASC PTY H2 = 34;

literal NMASC PTY H2 = 34;

literal NMASC PTY H4 = 36;

literal NMASC PTY DU1 = 1;

literal NMASC PTY DU2 = 2;

literal NMASC PTY CD1 = 129;

literal NMASC PTY CM2 = 194;

literal NMASC PTY CM3 = 195;

literal NMASC PTY CM4 = 196;

literal NMASC PTY CM5 = 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASCII image (ASC=1)
Hex image (NTY=H, NLE=IMAGE)
Hex byte (NTY=H, NLE=BYTE)
Hex word (NTY=H, NLE=WORD)
Hex byte (NTY=H, NLE=LONG)
Decimal unsigned byte (NTY=DU,NLE=BYTE)
Decimal unsigned word (NTY=DU,NLE=WORD)
Coded decimal byte (COD=1, 1 byte)
Coded multiple, 2 fields
Coded multiple, 3 fields
Coded multiple, 4 fields
Coded multiple, 5 fields
                                                                                                                                                      Circuit parameters
                                                                                                    literal NMASC_PCCI_STA = 0;

Literal NMASC_PCCI_SUB = 1;

Literal NMASC_PCCI_SER = 100;

Literal NMASC_PCCI_LCT = 110;

Literal NMASC_PCCI_SPY = 120;

Literal NMASC_PCCI_SSB = 121;

Literal NMASC_PCCI_CNO = 200;

Literal NMASC_PCCI_COB = 201;
                                                                                                                                                                                                                                                                                                                                                                                                                                          State (coded byte of NMA$(_STATE_)
Substate (coded byte of NMA$(_LINSS_)
Service (coded byte of NMA$(_LINSV_)
Counter timer (word)
Service physical address (NI address)
Service substate (coded byte of NMA$(_LINSS_)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Connected node
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Connected object
```

```
G 7
15-Sep-1984 23:06:17
15-Sep-1984 22:49:02
                                                                                                                                                                                                                     VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                              literal NMASC_PCCI_LOO = 400;
literal NMASC_PCCI_DRT = 801;
literal NMASC_PCCI_BLO = 810;
literal NMASC_PCCI_BLO = 810;
literal NMASC_PCCI_BLO = 810;
literal NMASC_PCCI_COS = 900;
literal NMASC_PCCI_MRT = 901;
literal NMASC_PCCI_MRT = 902;
literal NMASC_PCCI_HET = 906;
literal NMASC_PCCI_BLK = 910;
literal NMASC_PCCI_MRC = 920;
literal NMASC_PCCI_MRC = 920;
literal NMASC_PCCI_NUM = 930;
literal NMASC_PCCI_NUM = 930;
literal NMASC_PCCI_POL = 1010;
literal NMASC_PCCI_POL = 1010;
literal NMASC_PCCI_POL = 1010;
literal NMASC_PCCI_DWN = 1100;
literal NMASC_PCCI_USE = 1111;
literal NMASC_PCCI_USE = 1111;
literal NMASC_PCCI_USE = 1112;
literal NMASC_PCCI_USE = 1120;
literal NMASC_PCCI_TYP = 1112;
literal NMASC_PCCI_TYP = 1112;
literal NMASC_PCCI_TYP = 1112;
literal NMASC_PCCI_TYP = 1112;
literal NMASC_PCCI_TYP = 1121;
literal NMASC_PCCI_TYP = 1144;
literal NMASC_PCCI_TRT = 1144;
literal NMASC_PCCI_TRT = 1144;
literal NMASC_PCCI_TRT = 1144;
literal NMASC_PCCI_TRT = 1145;
literal NMASC_PCCI_TRT = 1146;
literal NMASC_PCCI_TRT = 1150;
literal NMASC_PCCI_TRT = 1150;
literal NMASC_PCCI_TRT = 1150;
literal NMASC_PCCI_TRT = 1156;
literal NMASC_PCCI_TRT = 1156;
literal NMASC_PCCI_TRT = 1157;
literal NMASC_PCCI_DTH = 1158;

RSX-specific circuit parameters
02233890
02233890
02233390
0222444567890
02223555567890
02223555567890
0222355567890
0222355567890
022355567890
022355567890
022355567890
022355567890
                                                                                                                                                Loopback name (ascic)
Adjacent node
                                                                                                                                                 Designated router on NI
                                                                                                                                                Block size (word)
Cost (byte)
                                                                                                                                                Maximum routers on NI (byte)
Router priority on NI (byte)
                                                                                                                                                 Hello timer (word)
                                                                                                                                                 Listen timer (word)
                                                                                                                                                Blocking (coded byte of NMA$C_CIRBLK_)
Maximum recalls (byte)
Recall timer (word)
Number (ascic)
                                                                                                                                                 User entity identification
                                                                                                                                                Polling state (coded byte of NMASC_CIRPST_)
                                                                                                                                                 Polling substate (coded byte)
                                                                                                                                                 Owner entity identification
                                                                                                                                                 Line (ascic)
                                                                                                                                                Usage (coded byte of NMA$C_CIRUS_)
Type (coded byte of NMA$C_CIRTY_)
DIE (ascic)
                                                                                                                                                Channel (word)
Maximum data (word)
Maximum window (byte)
                                                                                                                                                 Tributary (byte)
                                                                                                                                                 Babble timer (word)
                                                                                                                                                 Transmit timer (word)
                                                                                                                                                 Retransmit timer (word)
                                                                                                                                                 Maximum receive buffers (coded byte)
0264
0265
                                                                                                                                                 Maximum transmits (byte)
0266
0267
                                                                                                                                                 Active base (byte)
                                                                                                                                                 Active increment (byte)
0268
                                                                                                                                                 Inactive base (byte)
               Ŏ
0269
0270
0271
0272
0273
0274
0275
0276
0277
0278
0281
0282
0283
                                                                                                                                                 Inactive increment (byte)
                                                                                                                                                Inactive threshold (byte)
                0
                                                                                                                                                Dying base (byte)
                                                                                                                                         Dying increment (byte)
Dying threshold (byte)
                                                                                                                                         ! Dead threshold (byte)
                                 ! RSX-specific circuit parameters
                                literal NMA$C_PCCI_RSX_MAC = 2320:
literal NMA$C_PCCI_RSX_LOG = 2380:
literal NMA$C_PCCI_RSX_DLG = 2385:
literal NMA$C_PCCI_RSX_ACT = 2390:
                                                                                                                                                Multipoint active ratio
                                                                                                                                                Logical name
                                                                                                                                                Designated name
                                                                                                                                                Actual name
                                        VMS-specific circuit NICE parameters [2700 - 2799]
                                literal NMA$C_PCCI_VER = 2700;
literal NMA$C_PCCI_XPT = 2720;
                                                                                                                                        ! Verification (coded byte of NMA$C_CIRVE_)
! Transport type (coded byte of NMA$C_CIRXPT_)
                                       VMS-specific datalink only circuit parameters [2800 - 2899]
                                        (these will never be used in NICE messages).
```

Page

```
H 7
15-Sep-1984 23:06:17 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:49:02 _$255$DUA28:[NCP.OBJ]NMADEF.R32;1
literal NMASC_PCCI_MST = 2810;
                                                                                                                                                                                      ! Maintenance state
                                                     Server Base specific Circuit parameters
                                           literal NMA$C_PCCI_SRV_LOG = 3380;
literal NMA$C_PCCI_SRV_DLG = 3385;
literal NMA$C_PCCI_SRV_ACT = 3390;
                                                                                                                                                                                                 Logical name
                                                                                                                                                                                                 Designated name
                                                                                                                                                                                                Actual name
                                                               Line parameters
                                        literal NMASC PCLI STA = 0;
literal NMASC PCLI SUB = 1;
literal NMASC PCLI SER = 100;
literal NMASC PCLI LCT = 110;
literal NMASC PCLI LCT = 110;
literal NMASC PCLI LOO = 400;
literal NMASC PCLI BLO = 810;
literal NMASC PCLI BLO = 810;
literal NMASC PCLI DEV = 1100;
literal NMASC PCLI DEV = 1100;
literal NMASC PCLI DEV = 1110;
literal NMASC PCLI DUP = 1111;
literal NMASC PCLI DUP = 1111;
literal NMASC PCLI DUP = 1112;
literal NMASC PCLI LTY = 112;
literal NMASC PCLI STI = 1120;
literal NMASC PCLI STI = 1120;
literal NMASC PCLI NTI = 1121;
literal NMASC PCLI NTI = 1121;
literal NMASC PCLI MBL = 1130;
literal NMASC PCLI MBL = 1130;
literal NMASC PCLI MBL = 1130;
literal NMASC PCLI TRI = 1140;
literal NMASC PCLI SLT = 1150;
literal NMASC PCLI DDT = 1151;
literal NMASC PCLI DDT = 1151;
literal NMASC PCLI DDT = 1151;
literal NMASC PCLI SRT = 1150;
literal NMASC PCLI SRT = 1153;
literal NMASC PCLI SRT = 1150;
                                                                                                                                                                                               State (coded byte of NMA$C_STATE )
Substate (coded byte of NMA$C_LINSS_)
                                                                                                                                                                                              Service (coded byte of NMA$C_[INSV_])
Counter timer (word)
Loopback name (ascic) [V2 only]
Adjacent node [V2 only]
Block size (word) [V2 only]
Cost (byte) [V2 only]
Device (ascic)
Receive buffers
                                                                                                                                                                                   Device (ascic)
Receive buffers
Controller (coded byte of NMA$(_LIN(N_))
Duplex (coded byte of NMA$(_DPX_)
Protocol (coded byte of NMA$(_LINTY_)
Type (coded byte of NMA$(_LINTY_) [V2 only]
Clock (coded byte of NMA$(_LINTY_) [V2 only]
Service timer (word)
Normal timer (word)
Retransmit timer (word)
Holdback timer (word)
Maximum block (word)
Maximum retransmits (byte)
0320
0321
0322
0323
0324
0325
0326
0327
0328
0329
0330
                                                                                                                                                                                                Maximum retransmits (byte)
                                                                                                                                                                                     Maximum window (byte)
Tributary (byte) [V2 only]
Scheduling timer (word)
Dead timer (word)
                                                                                                                                                                                                Delay timer (word)
                                                                                                                                                                                                Stream timer (word)
                                                                                                                                                                                      ! Hardware address (NI address)
                                            ! RSX-specific line parameters
                                         literal NMA$C PCLI RSX OWN = 2300;
literal NMA$C PCLI RSX CCS = 2310;
literal NMA$C PCLI RSX UCS = 2311;
literal NMA$C PCLI RSX VEC = 2312;
literal NMA$C PCLI RSX PRI = 2313;
literal NMA$C PCLI RSX MDE = 2321;
literal NMA$C PCLI RSX LLO = 2330;
0334
0335
0336
0337
                                                                                                                                                                                                 Controller CSR
                                                                                                                                                                                                Unit CSR
                                                                                                                                                                                                Vector
                                                                                                                                                                                      ! Priority
                                                                                                                                                                                                Dead polling ratio
                                                                                                                                                                                      Location
 0339
                                                        0. Firstfit
1. Topdown
                                           literal NMA$C_PCLI_RSX_LOG = 2380:
literal NMA$C_PCLI_RSX_DLG = 2385:
literal NMA$C_PCLI_RSX_ACT = 2390:
                                                                                                                                                                                               Logical name
                                                                                                                                                                                                Designated name
                                                                                                                                                                                                Actual name
                                                     VMS-specific line NICE parameters [2700 - 2799]
                                           literal NMASC_PCLI_MCD = 2701; ! Micro-code dump filespec (ascic)
```

```
VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                                                                                                                                                                                                                                                                                                                                                             Page
                                          literal NMASC_PCLI_XMD = 2710;
literal NMASC_PCLI_EPT = 2720;
                                                                                                                                                                                   ! X.25 line mode (coded byte of NMA$C_X25MD_)
! Ethernet Protocol Type (hex word)
                                                    VMS-specific datalink only line parameters [2800 - 2899]
                                      (these will never be used in NICE messages).

literal NMASC PCLI BUS = 2801; | Buffer si literal NMASC PCLI NMS = 2810; | Number of literal NMASC PCLI PHA = 2820; | Physical literal NMASC PCLI DPA = 2821; | (same as literal NMASC PCLI DPY = 2830; | Ethernet literal NMASC PCLI MCA = 2831; | UNA Multi (See NMASC LINMC) |

literal NMASC PCLI IIP = 2839; | DELUA Intiliteral NMASC PCLI IIP = 2840; | UNA Promi literal NMASC PCLI PRM = 2840; | UNA Promi literal NMASC PCLI PRM = 2841; | UNA Promi literal NMASC PCLI PAD = 2842; | UNA Paddi literal NMASC PCLI DCH = 2843; | UNA Data literal NMASC PCLI DCH = 2843; | UNA Data literal NMASC PCLI DCH = 2845; | UNA Hardw literal NMASC PCLI DCH = 2846; | UNA Proto literal NMASC PCLI BBC = 2846; | UNA Proto literal NMASC PCLI BCC = 2846; | UNA Devic literal NMASC PCLI BSZ = 2848; | UNA Devic literal NMASC PCLI BSZ = 2848; | UNA Devic literal NMASC PCLI DES = 2849; | UNA desti literal NMASC PCLI DES = 2849; | UNA desti literal NMASC PCLI RET = 2850; | PCL numbe literal NMASC PCLI RIB = 2852; | PCL remain literal NMASC PCLI INTLO = 2861; | Internal literal NMASC PCLI INTLO = 2866; | State infoliteral NMASC PCLI INTLO = 2868; | Wait for literal NMASC PCLI INTLO = 2869; | Lear modiliteral NMASC PCLI INT
                                                   (these will never be used in NICE messages).
                                                                                                                                                                                              Buffer size (word)
                                                                                                                                                                                              Number of DMP/DMF synch chars (word)
0358
0358
03560
0361
0363
0363
0363
0367
0368
0376
0376
03778
0378
                                                                                                                                                                                              Physical NI address of UNA (hex string)
                                                                                                                                                                                            (same as HWA); Default UNA physical address (hex string) 
Ethernet Protocol type (word) 
UNA Multicast address list (special)
                                                                                                                                                                                           DELUA Internal Loopback mode
                                                                                                                                                                                            UNA Promiscuous mode (coded byte of NMA$C_STATE_)
UNA Multicast address mode (coded byte of NMA$C_STATE_)
                                                                                                                                                                                  UNA Padding mode (coded byte of NMA$C_STATE_)
UNA Data chaining mode (coded byte of NMA$C_STATE_)
UNA CRC mode (coded byte of NMA$C_STATE_)
UNA Hardware Buffer Quota (word)
                                                                                                                                                                                  UNA protocol access mode (coded byte of NMA$C_ACC_)
UNA Echo mode (coded byte of NMA$C_STATE_)
UNA Device Buffer size
UNA destination Ethernet address
                                                                                                                                                                                             PCL number of retries (word)
                                                                                                                                                                                             PCL address mode (coded byte of NMA$C_LINMO_)
PCL retry-if-busy state (coded byte of NMA$C_STATE_)
Maintenance loopback mode for devices
0380
0381
0382
0383
                                                                                                                                                                                              Internal loopback level 0
                                                                                                                                                                                              Internal loopback level 1
                                                                                                                                                                                             Internal loopback level 2
Framing address & level 3
                                                                                                                                                                                              Internal loopback level
0384
0385
                                                                                                                                                                                            Framing address for Bisylic
State info 1st longword
State info 2st longword
Wait for CTS time out value for DMF sync half duplex
0386
0387
0388
                                                                                                                                                                                             Clear modem on deassign of channel
0389
                                                                                                                                                                                            BISYNC protocol sync char
Number of bits per character
0390
0391
0392
0393
                                                              Server Base specific line parameters
                                        literal NMA$C PCLI SRV OWN = 3300;
literal NMA$C PCLI SRV UCS = 3311;
literal NMA$C PCLI SRV VEC = 3312;
literal NMA$C PCLI SRV PRI = 3313;
literal NMA$C PCLI SRV LOG = 3380;
literal NMA$C PCLI SRV DLG = 3385;
literal NMA$C PCLI SRV ACT = 3390;
0394
                                                                                                                                                                                              Owner
0395
                                                                                                                                                                                              Unit CSR
0396
0397
                                                                                                                                                                                             Vector
                                                                                                                                                                                             Priority
0398
0399
                                                                                                                                                                                             Logical name
                                                                                                                                                                                             Designated name
0400
                                                                                                                                                                                             Actual name
0402
                                                              Console module parameters
0404
                                           literal NMA$C_PCCO_RTR = 110; ! Reservation timer (word)
```

```
Loader module parameters
            literal NMASC_PCLD_ASS = 10;
                 Looper module parameters
            literal NMASC_PCLP_ASS = 10:
```

! Assistance flag (coded byte of NMA\$C_ASS_)

! Assistance flag (coded byte of NMA\$C_ASS_)

Configurator module parameters

```
literal NMASC_PCCN_CIR = 100;

literal NMASC_PCCN_SUR = 110;

literal NMASC_PCCN_ELT = 111;

literal NMASC_PCCN_PHA = 120;

literal NMASC_PCCN_LRP = 130;

literal NMASC_PCCN_MVR = 20001;

literal NMASC_PCCN_FCT = 20002;

literal NMASC_PCCN_CUS = 20003;

literal NMASC_PCCN_CUS = 20004;

literal NMASC_PCCN_RTR = 20004;

literal NMASC_PCCN_RSZ = 20006;

literal NMASC_PCCN_RSZ = 20006;

literal NMASC_PCCN_HWA = 20007;

literal NMASC_PCCN_SFI = 20200;

literal NMASC_PCCN_SFI = 20200;

literal NMASC_PCCN_SPR = 20300;

literal NMASC_PCCN_DLK = 20400;
```

NI circuit name (ascic)
Surveillance flag (coded byte of NMA\$C_SUR_) Elapsed time Physical address (NI address)

Time of last report Maintenance version function list

Current console user (NI address)
Reservation timer (word) Command buffer size (word)
Response buffer size (word)
Hardware address (NI address)
Device type (coded byte of NMA\$C_SOFD_)

System processor (coded word) ! Data link type (coded word)

Logging parameters

```
literal NMA$C_PCLO_STA = 0;
literal NMA$C_PCLO_LNA = 100;
literal NMA$C_PCLO_SIN = 200;
literal NMA$C_PCLO_EVE = 201;
```

State (coded byte of NMA\$C_STATE_) System/name (ascic) Sink node

Events

X.25 Access module parameters

```
literal NMA$C_PCXA_NOD = 320;
literal NMA$C_PCXA_USR = 330;
literal NMA$C_PCXA_PSW = 331;
literal NMA$C_PCXA_ACC = 332;
literal NMA$C_PCXA_NET = 1110;
                                                                                                   Node
                                                                                                   User (ascic)
                                                                                                   Password (ascic)
                                                                                                   Account (ascic)
                                                                                                   Network (ascic)
```

RSX-specific X.25-Access module parameters

```
literal NMA$C_PCXA_RSX_ADS = 2310;
literal NMA$C_PCXA_RSX_ANB = 2320;
literal NMA$C_PCXA_RSX_ASC = 2330;
                                                                                             Destination
                                                                                             Number
                                                                                       ! Scope
```

Server Base specific X.25-Access module parameters

```
literal NMASC_PCXA_SRV_ADS = 3310;
literal NMASC_PCXA_SRV_ANB = 3320;
literal NMASC_PCXA_SRV_ASC = 3330;
                                                                                                Destination
                                                                                                Number
                                                                                               Scope
```

X.25 Protocol module parameters

```
literal NMASC_PCXP_STA = 0;
                                   ! State (coded byte of NMA$C_STATE_)
```

```
15-Sep-1984 23:06:17
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                                                                                                                                                                                                                                  VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                                                                                                                                                                                                                                                                    Page
                               literal NMASC_PCXP_CTM = 100;

literal NMASC_PCXP_ACH = 1000;

literal NMASC_PCXP_ASW = 1010;

literal NMASC_PCXP_DTE = 1100;

literal NMASC_PCXP_GRP = 1101;

literal NMASC_PCXP_NET = 1110;

literal NMASC_PCXP_LIN = 1120;

literal NMASC_PCXP_CHN = 1130;

literal NMASC_PCXP_CHN = 1131;

literal NMASC_PCXP_DBL = 1140;

literal NMASC_PCXP_DBL = 1140;

literal NMASC_PCXP_MBL = 1150;

literal NMASC_PCXP_MBL = 1151;

literal NMASC_PCXP_MST = 1152;

literal NMASC_PCXP_MST = 1154;

literal NMASC_PCXP_CAT = 1160;

literal NMASC_PCXP_CAT = 1160;

literal NMASC_PCXP_CAT = 1160;

literal NMASC_PCXP_CAT = 1161;

literal NMASC_PCXP_CAT = 1162;

literal NMASC_PCXP_GTT = 1163;

literal NMASC_PCXP_GTT = 1170;

literal NMASC_PCXP_GTT = 1170;

literal NMASC_PCXP_GTT = 1172;
Counter timer (word)
                                                                                                                                                     Active channels (word)
                                                                                                                                                     Active switched (word)
                                                                                                                                                     DTE (ascic)
                                                                                                                                                    Group (ascic)
Network (ascic)
                                                                                                                                                     Line (ascic)
Channels
                                                                                                                                                   Channels
Maximum channels (word)
Default data (word)
Default window (byte)
Maximum data (word)
Maximum window (byte)
Maximum clears (byte)
Maximum resets (byte)
Maximum restarts (byte)
Call timer (byte)
Clear timer (byte)
Reset timer (byte)
Restart timer (byte)
                                                                                                                                                     Restart timer (byte)
                                                                                                                                                     Group DTE (ascic)
                                                                                                                                                     Group number (word)
                                                                                                                                                     Group type (coded byte of NMA$C_XPRTY_)
                                                      RSX-specific X.25-Protocol Module parameters
                                 literal NMA$C_PCXP_RSX_PMC = 2300;
                                                                                                                                             ! Maximum circuits
0491
0492
0493
0494
0495
0496
0497
0498
0499
                                         VMS-specific X25-PROTOCOL NICE parameters [2700 - 2799]
                Ŏ
                                 literal NMA$C_PCXP_MNS = 2700;
literal NMA$C_PCXP_MCI = 2710;
literal NMA$C_PCXP_SBS = 2720;
                                                                                                                                                    Multinetwork Support flag (coded byte of NMA$C_XPRMN_) [disabled, enabled Maximum circuits, qualified by DTE Substate, qualified by DTE (coded byte of NMA$C_XPRSB_)
                0000
                                         Server Base specific X.25-Protocol Module parameters
                ŏ
                                 literal NMA$C_PCXP_SRV_PMC = 3300;
                                                                                                                                           ! Maximum circuits
0501
                Ŏ
                                                 X.25 server module parameters
0502
0503
                               literal NMASC_PCXS_CTM = 100;

literal NMASC_PCXS_ACI = 200;

literal NMASC_PCXS_DST = 300;

literal NMASC_PCXS_MCI = 310;

literal NMASC_PCXS_NOD = 320;

literal NMASC_PCXS_USR = 330;

literal NMASC_PCXS_SPW = 331;

literal NMASC_PCXS_RPW = 331;

literal NMASC_PCXS_ACC = 332;

literal NMASC_PCXS_OBJ = 340;

literal NMASC_PCXS_OBJ = 340;

literal NMASC_PCXS_CMK = 351;

literal NMASC_PCXS_CMK = 351;

literal NMASC_PCXS_CVL = 352;

literal NMASC_PCXS_CVL = 352;

literal NMASC_PCXS_CVL = 355;
                                                                                                                                                     Counter timer (word)
0504
                                                                                                                                                     Active circuits (word)
0505
                                                                                                                                                     Destination (ascic)
0506
0507
0508
0509
                                                                                                                                                     Maximum circuits (word)
                                                                                                                                                     Node
                                                                                                                                                     Username
                                                                                                                                                     Password to set (ascic)
0510
0511
0512
0513
0514
0515
0516
0517
0518
                                                                                                                                                     Password to read (coded byte of NMA$C_NODPW_)
                                                                                                                                                    Account (ascic)
Object
                                                                                                                                                    Priority (byte)
Call mask (byte-counted hex)
                                                                                                                                                     Call value (byte-counted hex)
                                                                                                                                                     Group (ascic)
                                                                                                                                                     Number (ascic)
                                                                                                                                                     Subaddresses
```

```
15-Sep-1984 23:06:17 VAX-11 Bliss-32 V4.0-742 Page 11 15-Sep-1984 22:49:02 $255$DUA28:[NCP.OBJ]NMADEF.R32;1 (1)
```

```
RSX-specific X.25-Server Module parameters
                                                      literal NMASC_PCXS_RSX_5ST = 2310;
                                                                 VMS-specific X25-SERVER NICE parameters [2700 - 2799]
                                                     literal NMASC_PCXS_STA = 2700;
literal NMASC_PCXS_FIL = 2710;
                                                                                                                                                                                           ! Server state (coded byte of NMA$C_STATE_)
! Object filespec (ascic)
                                                                 Server Base specific X.25-Server Module parameters
                                                      literal NMA$C_PCXS_SRV_5ST = 3310;
                                                          0, On
1, Off
                                                      ! X.25 trace module parameters (VMS-specific)
                                                  literal NMASC_PCXT_STA = 0;
literal NMASC_PCXT_BSZ = 100;
literal NMASC_PCXT_MBK = 101;
literal NMASC_PCXT_FNM = 102;
literal NMASC_PCXT_MBF = 103;
literal NMASC_PCXT_CPL = 104;
literal NMASC_PCXT_MVR = 105;
literal NMASC_PCXT_TPT = 106;
literal NMASC_PCXT_CPS = 110;
literal NMASC_PCXT_TST = 111;
                                                                                                                                                                                                                                            State (coded byte of NMA$C_STATE_)
                                                                                                                                                                                                                                            Buffer size (word)
Maximum blocks/file (word)
                                                                                                                                                                                                                 Maximum blocks/file (word)

Filename (ascic)

Maximum number of buffers (word)

Global data capture limit (word)

Maximum trace file version (word)

Trace point name (ascic)

Per-trace capture size (word)

Per-trace state (coded byte of NMA$C_STATE_)
                                                                              Node parameters
                                                 literal NMASC PCNO STA = 0;
literal NMASC PCNO PHA = 10;
literal NMASC PCNO IDE = 100;
literal NMASC PCNO MVE = 101;
literal NMASC PCNO SLI = 110;
literal NMASC PCNO SPA = 111;
literal NMASC PCNO SPA = 111;
literal NMASC PCNO CPU = 113;
literal NMASC PCNO CPU = 113;
literal NMASC PCNO HWA = 114;
literal NMASC PCNO HWA = 114;
literal NMASC PCNO SNV = 115;
literal NMASC PCNO SLO = 121;
literal NMASC PCNO SLO = 121;
literal NMASC PCNO DFL = 123;
literal NMASC PCNO DFL = 123;
literal NMASC PCNO STY = 125;
literal NMASC PCNO DUM = 130;
literal NMASC PCNO DUM = 130;
literal NMASC PCNO DUM = 131;
literal NMASC PCNO DOT = 136;
literal NMASC PCNO DOT = 136;
literal NMASC PCNO DOT = 140;
literal NMASC PCNO DHO = 140;
literal NMASC PCNO LPC = 150;
literal NMASC PCNO LPC = 150;
literal NMASC PCNO LPC = 151;
literal NMASC PCNO LPD = 152;
                                                                                                                                                                                                                    State (coded byte of NMA$C_STATE_)
Physical address (NI address)
Identification (ascic)
Management version (3 bytes)
Service circuit (ascic)
Service password (8 bytes)
Service device (coded byte of NMA$C_SOFD_)
CPU type (coded byte of NMA$C_CPU_)
Hardware address (NI address)
Service node version (coded byte of NMA$C_SVN_)
Load file (ascic)
Secondary loader (ascic)
Tertiary loader (ascic)
Diagnostic file (ascic)
Software type (coded byte of NMA$C_SOFT_)
Software ID (ascic)
Dump file (ascic)
Secondary dumper (ascic)
Dump address (longword)
Dump count (longword)
Host (read only parameter)
Host (write only parameter)
Loop count (word)
Loop length (word)
Loop Data type (coded byte of NMA$C_LOOP_)
```

```
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                                                                                                                                                                                                                                                                                                                                            VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.0BJ]NMADEF.R32;1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page
                                              literal NMASC PCNO LPA = 153;
literal NMASC PCNO LPH = 154;
literal NMASC PCNO LPN = 155;
literal NMASC PCNO LAN = 156;
literal NMASC PCNO CTI = 160;
literal NMASC PCNO NAA = 500;
literal NMASC PCNO NAD = 502;
literal NMASC PCNO ADD = 502;
literal NMASC PCNO ADD = 502;
literal NMASC PCNO ADD = 511;
literal NMASC PCNO DEL = 600;
literal NMASC PCNO DEL = 600;
literal NMASC PCNO DEL = 601;
literal NMASC PCNO DEL = 720;
literal NMASC PCNO DFA = 720;
literal NMASC PCNO DFA = 720;
literal NMASC PCNO DFA = 720;
literal NMASC PCNO DHO = 821;
literal NMASC PCNO DHO = 821;
literal NMASC PCNO DLI = 822;
literal NMASC PCNO DLI = 822;
literal NMASC PCNO DLI = 830;
literal NMASC PCNO NND = 830;
literal NMASC PCNO RVE = 900;
literal NMASC PCNO RVE = 900;
literal NMASC PCNO RVE = 901;
literal NMASC PCNO RVE = 902;
literal NMASC PCNO MAD = 921;
literal NMASC PCNO MAD = 922;
literal NMASC PCNO MAD = 922;
literal NMASC PCNO MAD = 923;
literal NMASC PCNO MBE = 924;
literal NMASC PCNO MBC = 922;
literal NMASC PCNO MBC = 922;
literal NMASC PCNO MBC = 923;
literal NMASC PCNO BBC = 931;
literal NMASC PCNO BBC = 931;
literal NMASC PCNO BBC = 933;
                                                                                                                                                                                                                          Loop assistant physical address (NI address)
Loop help type (coded byte)
Loop circuit node
0577
0578
05581
0581
0583
0583
0586
0586
0587
0588
0588
0590
0591
0593
                        Loop circuit assistant node
                                                                                                                                                                                                                            Counter timer (word)
                                                                                                                                                                                                                           Name
                                                                                                                                                                                                                           Cincuit (ascic)
                                                                                                                                                                                                                       Address
Incoming timer (word)
Outgoing timer (word)
Active links (word)
Delay (word)
Nsp version (3 bytes)
Maximum links (word)
Delay factor (byte)
Delay weight (byte)
Inactivity timer (word)
Retransmit factor (word)
Destination Type (coded byte of NMA$C_XPRTY_)
Destination Cost (word)
Destination Hops (byte)
Destination circuit (ascic)
Next node to destination
Routing version (3 bytes)
Executor Type (coded byte of NMA$C_NODTY_)
Routing timer (word)
Subaddress (2 words)
Broadcast routing timer (word)
                                                                                                                                                                                                                           Address
0594
0595
0596
0597
 0598
 0599
0600
0601
0602
0603
0604
0605
0606
                                                                                                                                                                                                                          Broadcast routing timer (word)
Maximum address (word)
                                                                                                                                                                                                                           Maximum circuits (word)
                                                                                                                                                                                                                          Maximum cost (word)
Maximum hops (byte)
Maximum visits (byte)
0608
0609
0610
0611
0612
0613
0614
0616
0617
0618
0623
0623
0623
0623
0623
0626
0630
0633
                                                                                                                                                                                                                          Maximum areas (byte)
Maximum broadcast nonrouters (word)
                                                                                                                                                                                                                          Maximum broadcast routers (word)
                                                                                                                                                                                                                          Area maximum cost (word)
Area maximum hops (byte)
Maximum buffers (word)
                                                                                                                                                                                                                          Executor buffer size (word)
Segment buffer size (word)
                                                                                                                                                                                                                          Forwarding buffer size (word)
                                                           RSX-Specific Node (Executor) parameters
                                                 literal NMA$C_PCNO_RSX_RPA = 2300;
                                                                                                                                                                                                                         Receive password
                        000000000
                                                  ! 0, Password set
literal NMASC_PCNO_RSX_TPA = 2301;
                                                                                                                                                                                                                         Transmit password
                                                 iteral NMA$C_PCNO_RSX_VER = 2310;
                                                                                                                                                                                                               ! Verification state
                                                               0. On
1. Off
                                                           VMS-specific node parameters
                                                literal NMA$C_PCNO_PUS = 2704;
literal NMA$C_PCNO_PAC = 2705;
                                                                                                                                                                                                  Privileged user in Privileged account
```

```
N 7
15-Sep-1984 23:06:17
15-Sep-1984 22:49:02
                                                                                                                                                                                                                          VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                                                                                                                                                                                                                                                        Page
                              literal NMA$C_PCNO_PPW = 2706;
literal NMA$C_PCNO_NUS = 2712;
literal NMA$C_PCNO_NAC = 2713;
literal NMA$C_PCNO_NPW = 2714;
literal NMA$C_PCNO_RPA = 2720;
literal NMA$C_PCNO_TPA = 2721;
literal NMA$C_PCNO_ACC = 2730;
literal NMA$C_PCNO_DAC = 2731;
literal NMA$C_PCNO_DAC = 2731;
literal NMA$C_PCNO_PIQ = 2740;
literal NMA$C_PCNO_ALI = 2741;
literal NMA$C_PCNO_PRX = 2750;
literal NMA$C_PCNO_DPX = 2751;
                                                                                                                                               Privileged password
Non-privileged user id
Non-privileged account
063363789012345678901000666666773345676776906888456789000066668884567890006668884567890006668888
                                                                                                                                               Non-privileged password
                                                                                                                                               Receive password
Transmit password
Access (coded byte of NMA$C_ACES_)
                                                                                                                                               Default access (coded byte of NMA$C_ACES_)
                                                                                                                                              Pipeline quota (word)
                                                                                                                                               Alias address (word)
                                                                                                                                               Proxy access (coded byte of NMA$C_ACES_) !! Obsolete: Only for LIST/PURGE
                                                                                                                                               Default proxy access (coded byte of NMA$C_ACES_)
                                       Server Base specific Node (Executor) parameters
                               literal NMA$C_PCNO_SRV_RPA = 3300;
! 0, Password set
                                                                                                                                       ! Receive password
                                literal NMA$C_PCNO_SRV_TPA = 3301;
                                                                                                                                       ! Transmit password
                                         O, Password set
                                literal NMA$C_PCNO_SRV_VER = 3310;
                                                                                                                                              Verification state
                                         0. On
1. Off
                             literal NMASC PCNO SRV ACB = 3402;

literal NMASC PCNO SRV ASB = 3404;

literal NMASC PCNO SRV ALB = 3406;

literal NMASC PCNO SRV MCB = 3410;

literal NMASC PCNO SRV MSB = 3420;

literal NMASC PCNO SRV MLB = 3430;

literal NMASC PCNO SRV LBS = 3431;

literal NMASC PCNO SRV NRB = 3440;

literal NMASC PCNO SRV CPT = 3450;

literal NMASC PCNO SRV CPF = 3452;

literal NMASC PCNO SRV CPL = 3454;

literal NMASC PCNO SRV XPT = 3460;

literal NMASC PCNO SRV XPT = 3460;

literal NMASC PCNO SRV XPF = 3462;

literal NMASC PCNO SRV XPF = 3464;
                                                                                                                                               Active control buffers
                                                                                                                                               Active small buffers
                                                                                                                                               Active large buffers
                                                                                                                                               Maximum control buffers
                                                                                                                                             Maximum control buffers

Maximum small buffers

Maximum large buffers

Large buffer size

Minimum receive buffers

CEX pool: total bytes

CEX pool: number of segments

CEX pool: largest segment
               Ŏ
                                                                                                                                              Extended pool: total bytes
Extended pool: number of segments
                                                                                                                                              Extended pool: largest segment
                                               Area parameters
                               literal NMA$C_PCAR_STA = 0;
literal NMA$C_PCAR_COS = 820;
literal NMA$C_PCAR_HOP = 821;
literal NMA$C_PCAR_CIR = 822;
literal NMA$C_PCAR_NND = 830;
                                                                                                                                               State (coded byte of NMA$C_STATE_)
                                                                                                                                               Cost (word)
                                                                                                                                               Hops (byte)
                                                                                                                                               Circuit (ascic)
                                                                                                                                               Next node to area
                                               VMS-specific object parameters
                              literal NMA$C_PCOB_OAN = 400;
literal NMA$C_PCOB_OAC = 410;
literal NMA$C_PCOB_ONA = 500;
literal NMA$C_PCOB_OCO = 510;
literal NMA$C_PCOB_OUS = 511;
literal NMA$C_PCOB_OVE = 520;
literal NMA$C_PCOB_NAM = 500;
literal NMA$C_PCOB_NUM = 513;
literal NMA$C_PCOB_FID = 530;
literal NMA$C_PCOB_PID = 535;
                                                                                                                                               Active name
Active links
                                                                                                                                               Name
                                                                                                                                               Copies
                                                                                                                                               User
                                                                                                                                               Verification
                                                                                                                                               Name
                                                                                                                                               Number
                                                                                                                                               File id
                                                                                                                                               Process id
```

```
B 8
15-Sep-1984 23:06:17
15-Sep-1984 22:49:02
                                                                                                                                                                                                                    VAX-11 Bliss-32 V4.0-742
$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                                                                                                                                                                                                                                                 Page
                               literal NMA$C_PCOB_PRV = 540:
literal NMA$C_PCOB_USR = 550:
literal NMA$C_PCOB_ACC = 551:
literal NMA$C_PCOB_PSW = 552:
literal NMA$C_PCOB_PRX = 560:
0691
0693
0694
0695
0696
0697
0698
0700
0701
0702
0703
0704
                                                                                                                                           Privilege list
User id
                                                                                                                                            Account
                                                                                                                                            Password
                                                                                                                                           Proxy access (coded byte of NMA$C_ACES_)
                                              VMS-specific link parameters
                              literal NMA$C_PCLK_STA = 0;

literal NMA$C_PCLK_PID = 101;

literal NMA$C_PCLK_NID = 102;

literal NMA$C_PCLK_LAD = 105;

! entity is node rather than link!

CM-1/2, DU-2 (link!), HI-4 (pid)

literal NMA$C_PCLK_DLY = 110;

literal NMA$C_PCLK_RLN = 120;

literal NMA$C_PCLK_RID = 121;

literal NMA$C_PCLK_USR = 130;

literal NMA$C_PCLK_PRC = 131;
                                                                                                                                            State
                                                                                                                                            Process id
                                                                                                                                            Partner Node
                                                                                                                                           Link address [V2 only]
                                                                                                                                            Round trip delay time (word)
0706
0707
0708
0709
0710
0711
0712
0713
0714
                                                                                                                                            Remote link number (word)
                                                                                                                                            Remote identification, PID or username (ascic)
                                                                                                                                           Username of link owner (ascic)
Process name of link owner (ascic)
                             literal NMASC_CTCIR_ZER = 0;
Literal NMASC_CTCIR_APR = 800;
Literal NMASC_CTCIR_DPS = 801;
Literal NMASC_CTCIR_ACL = 802;
Literal NMASC_CTCIR_ACL = 805;
Literal NMASC_CTCIR_TPR = 810;
Literal NMASC_CTCIR_TPR = 810;
Literal NMASC_CTCIR_TPS = 811;
Literal NMASC_CTCIR_TPS = 811;
Literal NMASC_CTCIR_TPS = 812;
Literal NMASC_CTCIR_IFL = 820;
Literal NMASC_CTCIR_IFL = 821;
Literal NMASC_CTCIR_BRC = 1000;
Literal NMASC_CTCIR_BRC = 1000;
Literal NMASC_CTCIR_DBR = 1010;
Literal NMASC_CTCIR_DBR = 1010;
Literal NMASC_CTCIR_DBS = 1011;
Literal NMASC_CTCIR_DEI = 1020;
Literal NMASC_CTCIR_RET = 1031;
Literal NMASC_CTCIR_RED = 1041;
Literal NMASC_CTCIR_LET = 1051;
Literal NMASC_CTCIR_SIE = 1050;
Literal NMASC_CTCIR_LEE = 1100;
Literal NMASC_CTCIR_LEE = 1101;
Literal NMASC_CTCIR_LEE = 1241;
Literal NMASC_CTCIR_NIR = 1242;

VMS-specific circuit counters
                                              Circuit counters
                                                                                                                                            Seconds since last zeroed
                                                                                                                                            Terminating packets received
                                                                                                                                            Originating packets sent
0716
0717
                                                                                                                                            Terminating congestion loss
                                                                                                                                            Corruption loss
                                                                                                                                            Transit packets received
                                                                                                                                            Transit packets sent
0720
0721
07223
07223
07225
07228
07230
07230
07230
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
07331
                                                                                                                                            Transit congestion loss
                                                                                                                                            Circuit down
                                                                                                                                            Initialization failure
                                                                                                                                           Bytes received
                                                                                                                                           Bytes sent
                                                                                                                                           Multicast bytes received
                                                                                                                                           Data blocks received
                                                                                                                                           Data blocks sent
Data errors inbound
                                                                                                                                           Data errors outbound
                                                                                                                                           Remote reply timeouts
                                                                                                                                           Local reply timeouts
Remote buffer errors
                                                                                                                                           Local buffer errors
Selection intervals elapsed
                                                                                                                                           Selection timeouts
NI user buffer unavailable
                                                                                                                                           Remote process errors [V2 only]
                                                                                                                                           Local process errors [V2 only]
Locally initiated resets
                                                                                                                                           Remotely initiated resets
                                                                                                                                           Network initiated resets
                                      VMS-specific circuit counters
                                                                                                                                    ! Multicast received for protocol
                               literal NMASC_CTCIR_MNE = 2701;
                                      type, but not enabled
                                literal NMASC_CTCIR_ERI = 2750;
                                                                                                                                  ! PCL Errors inbound, bit-mapped
```

**

```
-Sep-1984 23:06:17 VAX-11 Bliss-32 V4.0-7
-Sep-1984 22:49:02 _$255$DUA28:[NCP.OBJ]N
```

```
literal NMA$C_CTCIR_ERO = 2751;
! PCL Errors outbound, bit-mapped
                                      literal NMASC CTCIR RTO = 2752;

O Receiver busy
                                                                                                                                                                       ! PCL Remote timeouts, bit-mapped
                                      1 Transmitter offline
2 Receiver offline
literal NMA$C_CTCIR_LTO = 2753;
literal NMA$C_CTCIR_BER = 2754;
literal NMA$C_CTCIR_BEL = 2755;
                                                                                                                                                                                PCL Local timeouts
                                                                                                                                                                                PCL Remote buffer errors
                                                                                                                                                                                PCL Local buffer errors
                                     literal NMASC_CTLIN_ZER = 0;
literal NMASC_CTLIN_APR = 800;
literal NMASC_CTLIN_DPS = 801;
literal NMASC_CTLIN_TPR = 810;
literal NMASC_CTLIN_TPR = 810;
literal NMASC_CTLIN_TPS = 811;
literal NMASC_CTLIN_TPS = 811;
literal NMASC_CTLIN_TDN = 820;
literal NMASC_CTLIN_LDN = 820;
literal NMASC_CTLIN_LDN = 820;
literal NMASC_CTLIN_BRC = 1000;
literal NMASC_CTLIN_BRC = 1001;
literal NMASC_CTLIN_DBR = 1010;
literal NMASC_CTLIN_DBR = 1010;
literal NMASC_CTLIN_DBR = 1011;
literal NMASC_CTLIN_BBD = 1013;
literal NMASC_CTLIN_BBD = 1013;
literal NMASC_CTLIN_BSM = 1015;
literal NMASC_CTLIN_DEI = 1020;
literal NMASC_CTLIN_DEI = 1020;
literal NMASC_CTLIN_BER = 1040;
literal NMASC_CTLIN_LRT = 1031;
literal NMASC_CTLIN_LRT = 1031;
literal NMASC_CTLIN_LRT = 1051;
literal NMASC_CTLIN_SIE = 1060;
literal NMASC_CTLIN_SIE = 1060;
literal NMASC_CTLIN_SFL = 1060;
literal NMASC_CTLIN_SFL = 1061;
literal NMASC_CTLIN_SFL = 1066;
literal NMASC_CTLIN_UFD = 1063;
literal NMASC_CTLIN_UFD = 1064;
literal NMASC_CTLIN_UFD = 1066;
literal NMASC_CTLIN_UFD = 1100;
                                                          Line counters
                                                                                                                                                                                Seconds since last zeroed
                                                                                                                                                                               Arriving packets received [V2 only]
Departing packets sent [V2 only]
Arriving congestion loss [V2 only]
Transit packets received [V2 only]
Transit packets sent [V2 only]
                                                                                                                                                                               Transit congestion loss [V2 only]
Line down [V2 only]
Initialization failure [V2 only]
                                                                                                                                                                                Bytes received
                                                                                                                                                                                Bytes sent
                                                                                                                                                                                Multicast bytes received
                                                                                                                                                                                Data blocks received
                                                                                                                                                                                Data blocks sent
                                                                                                                                                                                Multicast blocks received
Blocks sent, initially deferred
                                                                                                                                                                                Blocks sent, single collision
Blocks sent, multiple collisions
                                                                                                                                                                                Data errors inbound
                                                                                                                                                                                Data errors outbound
                                                                                                                                                                               Remote reply timeouts
Local reply timeouts
Remote buffer errors
                                                                                                                                                                                Local buffer errors
                                                                                                                                                                                Selection intervals elapsed [V2 only]
                                                                                                                                                                               Selection timeouts [V2 only]
Send failure
Collision detect check failure
Receive failure
                                                                                                                                                                                Unrecognized frame destination
                                                                                                                                                                                Data overrun
                                                                                                                                                                                System buffer unavailable
                                                                                                                                                                                User buffer unavailable
                                                                                                                                                                                Remote process errors
                                       literal NMASC_CTLIN_LPE = 1101;
                                                                                                                                                                                Local process errors
                                                Line counter flags (byte offset will be 0)
 0800
0801
0802
0803
0804
                                      literal NMASS NMADEF1 = 2;
macro NMASW_NODE = 0.0.16.0 %;
macro NMASV_ADDR = 0.0.10.0 %;
literal NMASS_ADDR = 10;
                                       macro NMASV_AREA = 0,10,6,0 %;
```

```
VAX-11 Bliss-32 V4.0-742
$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                          Page
```

```
15-Sep-1984 23:06:17
15-Sep-1984 22:49:02
 0805
0806
0807
0808
                                                  literal NMA$S_AREA = 6:
                                                             Parameter ID word (DATA ID)
  0809
                                                macro NMA$V_PTY_TYP = 0,0,15,0 %;
 0810
0811
0812
0813
0814
0815
                                                 literal NMASS_PTY_TYP = 15;
                                                                                                                                                                                                               ! Type mask
                                             Parameter data type byte (DATA TYPE)

macro NMA$V PTY CLE = 0,0.6,0 %;
literal NMA$S PTY CLE = 6;
macro NMA$V PTY MŪL = 0,6.1,0 %;
macro NMA$V PTY COD = 0,7.1,0 %;
macro NMA$V PTY CMU = 0,6.2,0 %;
literal NMA$S PTY CMU = 2;
macro NMA$V PTY NLE = 0,0.4,0 %;
literal NMA$S PTY NLE = 4;
macro NMA$V PTY NTY = 0,4.2,0 %;
literal NMA$S PTY NTY = 2;
macro NMA$V PTY A$C = 0,6.1,0 %;
literal NMA$S PTY NTY = 2;
macro NMA$V PTY A$C = 0,6.1,0 %;
literal NMA$M CTLIN FCS = 16;
literal NMA$M CTLIN FCS = 16;
literal NMA$M CTLIN FCS = 16;
literal NMA$M CTLIN TRJ = 8;
literal NMA$S NMADEF2 = 1;
macro NMA$V CTLIN BTL = 0,3,1,0 %;
macro NMA$V CTLIN RRJ = 8;
literal NMA$S NMADEF3 = 1;
macro NMA$V CTLIN RRJ = 0,5,1,0 %;
literal NMA$S NMADEF4 = 1;
macro NMA$V CTLIN RRN = 4;
literal NMA$S NMADEF5 = 1;
macro NMA$V CTLIN TRN = 0,2,1,0 %;
literal NMA$S NMADEF5 = 1;
macro NMA$V CTLIN TRN = 0,2,1,0 %;
literal NMA$S NMADEF5 = 1;
macro NMA$V CTLIN TRN = 0,2,1,0 %;
literal NMA$S NMADEF6 = 1;
macro NMA$V CTLIN TRN = 0,2,1,0 %;
literal NMA$M CTLIN TRN = 16;
literal NMA$M CTLIN TRN = 2,2,1,0 %;
literal NMA$M CTLIN TRN = 16;
literal NMA$M CTLIN TRN = 2,2,1,0 %;
literal NMA$M C
                                                            Parameter data type byte (DATA TYPE)
                                                                                                                                                                                                                         Coded length mask
Coded multiple indicator
 0816
0817
                                                                                                                                                                                                                          Coded indicator
 0818
0819
0820
0821
0822
0823
0824
0825
0826
0827
                                                                                                                                                                                                                         Coded multiple
                                                                                                                                                                                                                         Number length mask
                                                                                                                                                                                                                          Number type mask
                                                                                                                                                                                                                         Ascii image indicator
  0828
  0829
  0830
                                                                                                                                                                                                                          block too long
  0831
                                                                                                                                                                                                                          frame check
 0832
0833
                                                                                                                                                                                                                          REJ sent
 0834
0835
                                                                                                                                                                                                                         REJ received
0836
0837
 0838
                                                                                                                                                                                                                         RNR received
 0839
 0840
0841
0842
0843
0844
0845
0846
0847
0848
                                                                                                                                                                                                                         RNR sent
                                                                                                                                                                                                                          invalid N(R) received
                                                                                                                                                                                                                         FRMR sent
 0859
0851
0852
0853
0854
0855
0856
                                                                                                                                                                                                                         Multicast packets transmitted
                                                                                                                                                                                                                         Multicast bytes transmitted
                                                                                                                                                                                                               ! PCL Remote errors, bit-mapped
                                                                                                     Message rejected
                                                                                                    Message truncated
                                                                                                     Receiver offline
                                                                                                     Receiver busy
  0858
0859
                                                                                                    Transmitter offline
                                                 literal NMASC_CTLIN_LCE = 2751;
! 0 Transmitter overrun
                                                                                                                                                                                                              ! PCL Local errors, bit-mapped
  0860
0861
                                                                                                   CRC error on transmit
```

E)

```
15-Sep-1984 23:06:17
15-Sep-1984 22:49:02
                                                                                                                                                                                 VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
CRC error on receive
                                                      Timeouts
                                                      Non-existant memory transmit
                                                     Non-existant memory receive
                                                     Buffer to small
                                                     failed to open channel
                          literal NMASC CTLIN_MSE = 2752;

1 Master down
                                                                                                              ! PCL master/secondary errors, bit-mapped
                                                     Now master
                                       Node counters
                         literal NMA$C_CTNOD_ZER = 0;

literal NMA$C_CTNOD_BRC = 600;

literal NMA$C_CTNOD_BSN = 601;

literal NMA$C_CTNOD_MRC = 610;

literal NMA$C_CTNOD_MSN = 611;

literal NMA$C_CTNOD_CRC = 620;

literal NMA$C_CTNOD_CSN = 621;

literal NMA$C_CTNOD_RTO = 630;

literal NMA$C_CTNOD_RSE = 640;

literal NMA$C_CTNOD_MLL = 700;

literal NMA$C_CTNOD_MLL = 700;

literal NMA$C_CTNOD_NUL = 901;

literal NMA$C_CTNOD_NUL = 901;

literal NMA$C_CTNOD_OPL = 903;

literal NMA$C_CTNOD_PFE = 910;

literal NMA$C_CTNOD_PFE = 910;

literal NMA$C_CTNOD_VER = 930;
                                                                                                                     Seconds since last zeroed
                                                                                                                     Bytes received
                                                                                                                     Bytes sent
                                                                                                                     Messages received
                                                                                                                     Messages sent
                                                                                                                     Connects received
                                                                                                                     Connects sent
                                                                                                                     Response timeouts
                                                                                                                    Received connect resource errors
Maximum logical links active
Aged packet loss
                                                                                                                     Node unreachable packet loss
                                                                                                                     Node out-of-range packet loss
                                                                                                                     Oversized packet loss
                                                                                                                     Packet format error
                                                                                                                     Partial routing update loss
                                                                                                                     Verification reject
                                Server Base Specific Executor Node Counters
                          literal NMA$C_CTNOD_SRV_SYC = 3310;
literal NMA$C_CTNOD_SRV_SYS = 3320;
literal NMA$C_CTNOD_SRV_SYL = 3330;
literal NMA$C_CTNOD_SRV_SYR = 3340;
                                                                                                                     Control buffer failures
                                                                                                                     Small buffer failures
                                                                                                                     Large buffer failures
                                                                                                                     Receive buffer failures
                                               X.25 Protocol module counters
                         literal NMASC CTXP ZER = 0;

literal NMASC CTXP BRC = 1000;

literal NMASC CTXP BSN = 1001;

literal NMASC CTXP BLR = 1010;

literal NMASC CTXP BLS = 1011;

literal NMASC CTXP CRC = 1200;

literal NMASC CTXP CSN = 1201;

literal NMASC CTXP FSR = 1210;

literal NMASC CTXP FSS = 1211;

literal NMASC CTXP MSA = 1220;

literal NMASC CTXP MSA = 1220;

literal NMASC CTXP RSE = 1230;

literal NMASC CTXP RSE = 1230;

literal NMASC CTXP LIR = 1240;

literal NMASC CTXP RIR = 1241;

literal NMASC CTXP RIR = 1242;

literal NMASC CTXP RIR = 1242;

literal NMASC CTXP RST = 1250;
                                                                                                                     Seconds since last zeroed
                                                                                                                     Bytes received
                                                                                                                     Bytes sent
                                                                                                                     Data blocks received
                                                                                                                     Data blocks sent
                                                                                                                     Calls received
                                                                                                                     Calls sent
                                                                                                                     fast selects received
                                                                                                                     Fast selects sent
                                                                                                                     Maximum switched circuits active
                                                                                                                     Maximum channels active
                                                                                                                     Received call resource errors
                                                                                                                     Locally initiated resets
                                                                                                                     Remotely initiated resets
                                                                                                                     Network initiated resets
                                                                                                                     Restarts
```

Page

(1)

DE

\$5

\$5

```
15-Sep-1984 23:06:17
15-Sep-1984 22:49:02
0919
0921
0922
0923
0924
0926
0927
0928
0931
0933
0933
0935
                                     X.25 Server module counters
                    literal NMA$C_CTXS_ZER = 0;
literal NMA$C_CTXS_MCA = 200;
literal NMA$C_CTXS_ICR = 210;
literal NMA$C_CTXS_LLR = 211;
                                                                                            Seconds since last zeroed
                                                                                            Maximum circuits active
                                                                                           Incoming calls rejected, no resources Logical links rejected, no resources
                                     Coded parameter values
                         Loop test block type coded values
                    literal NMA$C_LOOP_MIX = 2;
literal NMA$C_LOOP_ONE = 1;
literal NMA$C_LOOP_ZER = 0;
                                                                                            Mixed
                                                                                            Ones
                                                                                            Zeroes
                         Default values for loop functions
                    literal NMA$C_LOOP_DCNT = 1;
literal NMA$C_LOOP_DSIZ = 40;
                                                                                            Default count
                                                                                       ! Default message size
0938
0939
0940
0941
0942
0943
                         Values for LOOP HELP
                    literal NMA$C_LOOP_XMIT = 0:
literal NMA$C_LOOP_RECV = 1:
literal NMA$C_LOOP_FULL = 2:
                                                                                            Transmit
          Receive
0944
                                                                                       ! Full (both transmit and receive)
0946
0947
0948
                         State coded values
                    literal NMA$C_STATE_ON = 0;
literal NMA$C_STATE_OFF = 1;
0949
0950
0951
                              circuit/line/process specific state values
0952
0953
0954
0955
                    literal NMA$C_STATE_SER = 2;
literal NMA$C_STATE_CLE = 3;
                                                                                            Service (circuit/line only)
                                                                                       Cleared
0956
0957
0958
                              logging specific state values
                    literal NMA$C_STATE_HOL = 2;
                                                                                       ! Hold
0959
0960
0961
0962
0963
0964
0965
0966
0967
0968
0969
0970
                              node specific state values
                    literal NMA$C_STATE_SHU = 2:
literal NMA$C_STATE_RES = 3:
literal NMA$C_STATE_REA = 4:
literal NMA$C_STATE_UNR = 5:
                                                                                            Shut
                                                                                            Restricted
                                                                                            Reachable
                                                                                            Unreachable
                         Looper/loader assistance coded values
                    literal NMA$C_ASS_ENA = 0;
literal NMA$C_ASS_DIS = 1;
                                                                                            Enabled
                                                                                           Disabled
0971
0972
0973
                         Configurator surveillance coded values
                    literal NMA$C_SUR_ENA = 0:
literal NMA$C_SUR_DIS = 1;
                                                                                            Enabled
                                                                                           Disabled
```

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10

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ND SC SC SY

VAX-11 Bliss-32 V4.0-742 _\$255\$DUA28:[NCP.OBJ]NMADEF.R32;1

```
0976
0977
0978
0978
0981
0983
0983
0984
0988
0988
0998
0999
09995
09996
09998
09998
                                  Circuit/Line substate coded values
                          literal NMASC_LINSS_STA = 0:

literal NMASC_LINSS_REF = 1:

literal NMASC_LINSS_LOO = 2:

literal NMASC_LINSS_LOA = 3:

literal NMASC_LINSS_DUM = 4:

literal NMASC_LINSS_TRI = 5:

literal NMASC_LINSS_ASE = 6:

literal NMASC_LINSS_ALO = 7:

literal NMASC_LINSS_ADU = 8:

literal NMASC_LINSS_ATR = 9:

literal NMASC_LINSS_SYN = 10:

literal NMASC_LINSS_FAI = 11:

literal NMASC_LINSS_FAI = 11:

literal NMASC_LINSS_RUN = 12:

literal NMASC_LINSS_IDL = 14:
                                                                                                                            Starting
Reflecting
                                                                                                                            Looping
                                                                                                                             Loading
                                                                                                                            Dumping
                                                                                                                            Triggering
                                                                                                                            Autoservice
                                                                                                                            Autoloading
                                                                                                                            Autodumping
                                                                                                                            Autotriggering
                                                                                                                            Synchronizing
                                                                                                                            Failed
                                                                                                                            Running
             Unsyncronised Idle (PSI-only)
                                                                                                [In V2, line type coded values]
                                 Circuit type coded values
                           literal NMA$C_CIRTY_POI = 0:
literal NMA$C_CIRTY_CON = 1:
literal NMA$C_CIRTY_TRI = 2:
literal NMA$C_CIRTY_X25 = 3:
literal NMA$C_CIRTY_DMC = 4:
!/* CIRTY_LAPB, 5
                                                                                                                            DDCMP Point
DDCMP Controller
                                                                                                                            DDCMP Tributary
1000
1001
1002
1003
1004
1005
1006
1007
1008
1009
1010
                                                                                                                      ! DDCMP DMC compatibility mode (DMP)
                                                                                                                       /* LAPB *** remove once all references have been changed to LAPB ***
                            literal NMA$C_CIRTY_NI = 6;
                                                                                                                      ! NI
                                                 Circuit/Line Service
                           literal NMA$C_LINSV_ENA = 0;
literal NMA$C_LINSV_DIS = 1;
                                                                                                                           Enabled
                                                                                                                     Disabled
                                 Circuit polling state
1012
1013
1014
1015
1016
1017
                           literal NMA$C_CIRPST_AUT = 1:
literal NMA$C_CIRPST_ACT = 2:
literal NMA$C_CIRPST_INA = 3:
literal NMA$C_CIRPST_DIE = 4:
literal NMA$C_CIRPST_DED = 5:
                                                                                                                            Automatic
                                                                                                                            Active
                                                                                                                            Inactive
                                                                                                                            Dying
                                                                                                                            Dead
1018
1019
1020
1021
1023
1024
1025
1026
1027
1028
1029
1030
                                 Circuit blocking values
                           literal NMA$C_CIRBLK_ENA = 0;
literal NMA$C_CIRBLK_DIS = 1;
                                                                                                                     ! Enabled ! Disabled
                                 Circuit usage values
                           literal NMA$C_CIRUS_PER = 0;
literal NMA$C_CIRUS_INC = 1;
literal NMA$C_CIRUS_OUT = 2;
                                                                                                                            Permanent
                                                                                                                            Incoming
                                                                                                                            Outgoing
                                  Circuit maximum receive buffers
1031
                                                                                                                     ! Unlimited
                            literal NMASC_CIRBF_UNL = 255;
```

```
VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
! Circuit verification [VMS only]
                       literal NMA$C_CIRVE_ENA = 0:
literal NMA$C_CIRVE_DIS = 1;
                                                                                                ! Enabled ! Disabled
                            Circuit (desired) transport type
                                                                                           [VMS only]
                      literal NMASC_CIRXPT_ZND = 1:
literal NMASC_CIRXPT_PH2 = 2:
literal NMASC_CIRXPT_PH3 = 3:
literal NMASC_CIRXPT_RO3 = 3:
literal NMASC_CIRXPT_NR4 = 4:
                                                                                                      Force Phase II on this circuit
                                                                                                      Routing III
                                                                                                      Routing III
                                                                                                      Nonrouting Phase IV
                          Line duplex coded values
                       literal NMASC_DPX_FUL = 0:
literal NMASC_DPX_HAL = 1:
                           Line controller mode
                       literal NMA$C_LINCN_NOR = 0;
                                                                                                      Normal
                       literal NMA$C_LINCN_LOO = 1;
                                                                                                    Loop
1056
                          Line protocol values (same as CIRTY_)
                      literal NMA$C_LINPR_POI = 0;
literal NMA$C_LINPR_CON = 1;
literal NMA$C_LINPR_TRI = 2;
literal NMA$C_LINPR_DMC = 4;
literal NMA$C_LINPR_LAPB = 5;
literal NMA$C_LINPR_NI = 6;
literal NMA$C_LINPR_BSY = 9;
1058
                                                                                                     DDCMP Point
DDCMP Controller
DDCMP Tributary
                                                                                               DDCMP Point
DDCMP Controller
DDCMP Tributary
DDCMP DMC compatibility mode (DMP)
LAPB
1060
1061
1062
1063
1064
1065
1066
1067
1068
1069
1071
1073
1076
1077
1078
1079
1081
1082
1083
1084
1087
                                                                                                      BISYNC
                           Line protocol values for the PCL-11B
                      literal NMA$C_LINPR_MAS = 1;
literal NMA$C_LINPR_NEU = 2;
literal NMA$C_LINPR_SEC = 0;
                                                                                                      Master (controls clock signals)
                                                                                                ! Neutral (uses master's clock signals) ! Secondary (backup for master failure)
                           Line clock values
                       literal NMA$C_LINCL_EXT = 0:
literal NMA$C_LINCL_INT = 1:
                                                                                                    External
                                                                                                Internal
                           Line type coded values [V2 only]
                      literal NMA$C_LINTY_POI = 0:
literal NMA$C_LINTY_CON = 1:
literal NMA$C_LINTY_TRI = 2:
literal NMA$C_LINTY_DMC = 3:
                                                                                                      DDCMP Point
                                                                                                     DDCMP Controller
DDCMP Tributary
                                                                                                ! DDCMP DMC compatibility mode (DMP)
                            Line multicast address function code [VMS datalink only].
Destination and physical address function codes too [VMS datalink only].
                      literal NMA$C_LINMC_SET = 1;
literal NMA$C_LINMC_CLR = 2;
literal NMA$C_LINMC_CAL = 3;
                                                                                                      Set address(es)
1088
                                                                                                      (lear address(es)
                                                                                                ! Clear entire list of multicast addresses
```

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15-Sep-1984 23:06:17 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:49:02 _$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                                                                                                                                                                                       Page 21 (1)
1090 0
1091 0
1092 0
1093 0
1094 0
1095 0
1096 0
1097 0
1098 0
1100 0
1101 0
1102 0
1103 0
1104 0
1105 0
1106 0
                          literal NMASC_LINMC_SDF = 4;
                                                                                                          ! Set physical address to DECnet default
                                NI line protocol access mode [VMS datalink only]
                          literal NMA$C_ACC_SHR = 1;
literal NMA$C_ACC_LIM = 2;
literal NMA$C_ACC_EXC = 3;
                                                                                                           ! Shared access (default protocol user)
! Limited access (point-to-point conn.)
! Exclusive access (allow no others)
                               PCL-11B address mode
                          literal NMA$C_LINMO_AUT = 1:
literal NMA$C_LINMO_SIL = 2;
                                                                                      ! Auto address mode
! Silo address mode
                             X.25 line mode
                          literal NMA$C_X25MD_DTE = 1;
literal NMA$C_X25MD_DCE = 2;
literal NMA$C_X25MD_DTL = 3;
literal NMA$C_X25MD_DCL = 4;
                                                                                     line operates as DTE
line operates as DCE
line is a DTE in loopback
line is a DCE in loopback
                                                                                                            ! line operates as DTE
Node type values
                         literal NMA$C_NODTY_ROU = 0;
literal NMA$C_NODTY_NON = 1;
literal NMA$C_NODTY_PHA = 2;
literal NMA$C_NODTY_AREA = 3;
literal NMA$C_NODTY_RT4 = 4;
literal NMA$C_NODTY_NR4 = 5;
                                                                                                           ! Routing Phase III
! Nonrouting Phase III
! Phase II
! Area
! Routing Phase IV
! Nonrouting Phase IV
             0000000000000
                             Node password values
                                                                                                  ! Password set
                          literal NMA$C_NODPW_SET = 0;
                           ! Node CPU type codes
                         literal NMA$C_CPU_8 = 0;
literal NMA$C_CPU_11 = 1;
literal NMA$C_CPU_1020 = 2;
literal NMA$C_CPU_VAX = 3;
                                                                                                      PDP-8 processor
PDP-11 processor
Decsystem 10/20 processor
Vax processor
                                Service node version coded values
                                                                                                           ! Phase III
! Phase IV
                          literal NMA$C_NODSNV_PH3 = 0;
literal NMA$C_NODSNV_PH4 = 1;
                            Node software type code
                          literal NMA$C_SOFT_SECL = 0:
literal NMA$C_SOFT_TERL = 1:
literal NMA$C_SOFT_OSYS = 2:
literal NMA$C_SOFT_DIAG = 3:
                                                                                                           ! Secondary loader
! Tertiary loader
! Operating system
                                                                                                                 Operating system
                                                                                                            ! Diagnostics
                                Node access (and default access) codes
                          literal NMA$C_ACES_NONE = 0;
literal NMA$C_ACES_INCO = 1;
literal NMA$C_ACES_OUTG = 2;
                                                                                                                  None
 1145
                                                                                                                  Incoming
                                                                                                                 Outgoing
```

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15-Sep-1984 23:06:17 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:49:02 $255$DUA28:[NCP.OBJ]NMADEF.R32;1
                               literal NMASC_ACES_BOTH = 3:
literal NMASC_ACES_REQU = 4;
                                                                                                                                     ! Both
! Required
1147
1148
1149
1150
1151
1153
1153
1156
1157
1158
                                      X.25 Protocol type values
                               literal NMA$C_XPRTY_BIL = 1;
                                                                                                                                    ! Bilateral
                                   X.25 protocol state values
                               literal NMA$C_XPRST_ON = 0;
literal NMA$C_XPRST_OFF = 1;
literal NMA$C_XPRST_SHU = 2;
                                                                                                                                             Off
                                                                                                                                            Shut
1160
1161
1162
1163
1164
1165
1166
                                      X.25 protocol multi-network support flag
                               literal NMA$C_XPRMN_ENA = 0;
literal NMA$C_XPRMN_DIS = 1;
                                                                                                                                            Enabled
                                                                                                                                    Disabled
                                     X.25 protocol DTE substate values
                              literal NMA$C_XPRSB_RUN = 12;
literal NMA$C_XPRSB_UNS = 13;
literal NMA$C_XPRSB_SYN = 10;
                                                                                                                                            Running
Unsynchronized
1168
1169
                                                                                                                                             Synchronizing
1170
1171
1172
1173
                                        Months of the Year Codes
                             literal NMASC_JAN = 1;
literal NMASC_FEB = 2;
literal NMASC_MAR = 3;
literal NMASC_APR = 4;
literal NMASC_APR = 5;
literal NMASC_JUN = 6;
literal NMASC_JUL = 7;
literal NMASC_JUL = 7;
literal NMASC_SEP = 9;
literal NMASC_OCT = 10;
literal NMASC_OCT = 10;
literal NMASC_DEC = 12;
1174
1175
1176
1177
1178
1179
1180
1181
1182
1183
1184
1186
1187
                                     Service device codes (MOP)
                             literal NMA$C_SOFD_DP = 0;
literal NMA$C_SOFD_UNA = 1;
literal NMA$C_SOFD_DU = 2;
literal NMA$C_SOFD_DL = 4;
literal NMA$C_SOFD_DQ = 6;
literal NMA$C_SOFD_DA = 8;
literal NMA$C_SOFD_DMP = 10;
literal NMA$C_SOFD_DMC = 12;
literal NMA$C_SOFD_DMP = 18;
literal NMA$C_SOFD_DMP = 18;
literal NMA$C_SOFD_DTE = 20;
literal NMA$C_SOFD_DTE = 20;
literal NMA$C_SOFD_DW = 34;
literal NMA$C_SOFD_DW = 34;
literal NMA$C_SOFD_DMP = 38;
1188
1189
                                                                                                                                            DP11
                                                                                                                                            UNA
1190
1191
1192
1193
                                                                                                                                            DU11
                                                                                                                                            DL11
                                                                                                                                            DQ11
                                                                                                                                            DA11
1194
1195
                                                                                                                                            DUP11
                                                                                                                                            DMC11
1196
1197
                                                                                                                                            DMP11
                                                                                                                                            DTE20
1198
1199
                                                                                                                                             KL8
                                                                                                                                             DMV
1200
1201
1202
1203
                                                                                                                                             DPV
                                                                                                                                             DMF 32
                                                        Status codes for field support routines
```

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```
literal NMAS_SUCCESS = 1;

Literal NMAS_SUCCFLDRPL = 9;

Literal NMAS_BADFID = 0;

Literal NMAS_BADDAT = 8;

Literal NMAS_BADDAT = 8;

Literal NMAS_BADDAR = 16;

Literal NMAS_BUFTOOSMALL = 24;

Literal NMAS_FLDNOTFND = 32;

Literal NMAS_FLDNOTFND = 32;
                                                     Permanent database file ID codes
                               literal NMA$C OPN MIN = 0;
literal NMA$C OPN NODE = 0;
literal NMA$C OPN LINE = 1;
literal NMA$C OPN LOG = 2;
literal NMA$C OPN OBJ = 3;
literal NMA$C OPN CIR = 4;
literal NMA$C OPN X25 = 5;
literal NMA$C OPN X29 = 6;
literal NMA$C OPN CNF = 7;
literal NMA$C OPN MAX = 7;
literal NMA$C OPN MAX = 7;
literal NMA$C OPN MAX = 7;
literal NMA$C OPN ALL = 127;
                                                      Open access codes
                               literal NMA$C_OPN_AC_RO = 0;
literal NMA$C_OPN_AC_RW = 1;
                                                                                                           ! Read Only
! Read write
                                                         Define Phase II NICE function codes
                              literal NMA$C_FN2_DLL = 2;
literal NMA$C_FN2_ULD = 3:
literal NMA$C_FN2_TRI = 4:
literal NMA$C_FN2_LOO = 5:
literal NMA$C_FN2_TES = 6:
literal NMA$C_FN2_TES = 6:
literal NMA$C_FN2_SET = 7:
literal NMA$C_FN2_SET = 7:
literal NMA$C_FN2_REA = 8:
literal NMA$C_FN2_ZER = 9:
literal NMA$C_FN2_ZER = 9:
literal NMA$C_FN2_LNS = 14;
literal NMA$C_FN2_LNS = 14;
                                                         Change parameters (volatile only)
                               literal NMA$C_OP2_CHNST = 5;
literal NMA$C_OP2_CHLST = 3;
                                                                                                           ! Node operational status
! Line operational status
                                                         Read Information (Status and Counters only)
                               literal NMA$C_OP2_RENCT = 0;
literal NMA$C_OP2_RENST = 1;
literal NMA$C_OP2_RELCT = 4;
literal NMA$C_OP2_RELST = 5;
                                                                                                                                              Local node counters
                                                                                                           local node counters
local node status
Line counters
Line status
                                                         Zero counters
                                                                                                          Local Node counters
Line counters
                                literal NMA$C_OP2_ZENCT = 0;
literal NMA$C_OP2_ZELCT = 2;
```

EX

		15-Sep-1984 22:49:02 _\$255\$DU
61 0	Line entity codes	
61 0 62 0 63 0 64 0	literal NMA\$C_EN2_KNO = 0; literal NMA\$C_EN2_LID = 1; literal NMA\$C_EN2_LCN = 2;	! Known lines ! Line id ! Line convenience name
0 10	NML Return codes	
68 0 69 0 70 0	literal NMA\$C_STS_SUC = 1; literal NMA\$C_STS_MOR = 2; literal NMA\$C_STS_PAR = 3;	! Success ! Request accepted, more to come ! Partial reply
73 0	literal NMASC_STS_DON = -128;	! Done
75 76 77 78 78 78 78 78 78 78 78 78 78 78 78	literal NMASC_STS_FUN = -1; literal NMASC_STS_INV = -2; literal NMASC_STS_PRI = -3; literal NMASC_STS_PRI = -3; literal NMASC_STS_MPR = -5; literal NMASC_STS_MPR = -5; literal NMASC_STS_MVE = -7; literal NMASC_STS_MVE = -7; literal NMASC_STS_IDE = -9; literal NMASC_STS_IDE = -9; literal NMASC_STS_IDE = -9; literal NMASC_STS_FOP = -13; literal NMASC_STS_FOP = -13; literal NMASC_STS_FOP = -13; literal NMASC_STS_FOP = -14; literal NMASC_STS_FOP = -16; literal NMASC_STS_PVA = -16; literal NMASC_STS_PVA = -16; literal NMASC_STS_PVA = -16; literal NMASC_STS_PVA = -12; literal NMASC_STS_PVA = -20; literal NMASC_STS_PVA = -22; literal NMASC_STS_PVA = -23; literal NMASC_STS_PVA = -24; literal NMASC_STS_PVA = -25; literal NMASC_STS_PVA = -26; ! function not supported literal NMASC_STS_PGP = -27; literal NMASC_STS_PGP = -27; literal NMASC_STS_PMS = -28; literal NMASC_STS_PMS = -29;	Unrecognized function or option Invalid message format Privilege violation Oversized management command message Network management program error Unrecognized parameter type Incompatible management version Unrecognised component Invalid identification format Line communication error Component in wrong state File open error Invalid file contents Resource error Invalid parameter value Line protocol error File i/o error Mirror link disconnected No room for new entry Mirror connect failed Parameter not applicable Parameter value too long Hardware failure Operation failure System-specific management Invalid parameter grouping Bad loopback response Parameter missing
05 0 06 0 07 0 08 0	literal NMA\$C_STS_ALI = -127; literal NMA\$C_STS_OBJ = -126; literal NMA\$C_STS_PRO = -125; literal NMA\$C_STS_LNK = -124;	! Invalid alias identification ! Invalid object identification ! Invalid process identification ! Invalid link identification
10 0	Error details	
12 0	STS_FOP and STS_FIO	
114 0 115 0 116 0	literal NMA\$C_FOPDTL_PDB = 0; literal NMA\$C_FOPDTL_LFL = 1; literal NMA\$C_FOPDTL_DFL = 2;	! Permanent database ! Load file ! Dump file

```
M 8
15-Sep-1984 23:06:17
15-Sep-1984 22:49:02
                                                                                                                                                                                                                                                                                                                                                                                                 VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page 25 (1)
                                                       literal NMA$C_FOPDTL_SLF = 3;
literal NMA$C_FOPDTL_TLF = 4;
literal NMA$C_FOPDTL_SDF = 5;
Secondary loader
                          Tertiary loader
                                                                                                                                                                                                                                                             Secondary dumper
                                                                                                      STS_MLD, STS_MCF
                                                    literal NMASC NCEDTL NNA = 0;
literal NMASC NCEDTL INN = 1;
literal NMASC NCEDTL UNA = 2;
literal NMASC NCEDTL UNR = 3;
literal NMASC NCEDTL RSC = 4;
literal NMASC NCEDTL RJC = 5;
literal NMASC NCEDTL ONA = 6;
literal NMASC NCEDTL OBJ = 7;
literal NMASC NCEDTL ACC = 8;
literal NMASC NCEDTL BSY = 9;
literal NMASC NCEDTL NRS = 10;
literal NMASC NCEDTL NRS = 10;
literal NMASC NCEDTL DIE = 12;
literal NMASC NCEDTL DIE = 12;
literal NMASC NCEDTL DIE = 12;
literal NMASC NCEDTL DIS = 13;
literal NMASC NCEDTL ABO = 14;
literal NMASC NCEDTL ABO = 14;
literal NMASC NCEDTL ABM = 15;
                                                                                                                                                                                                                                                             No node name set
Invalid node name format
                                                                                                                                                                                                                                                              Unrecognised node name
                                                                                                                                                                                                                                                             Node unreachable
                                                                                                                                                                                                                                                             Network resources
Rejected by object
Invalid object name format
                                                                                                                                                                                                                                                             Unrecognised object
                                                                                                                                                                                                                                                            Access control rejected
Object too busy
No response from object
Node shut down
Node or object failed
                                                                                                                                                                                                                                                             Disconnect by object
                                                                                                                                                                                                                                                             Abort by object
Abort by management
                                                                                                     STS_OPE
                                                   literal NMA$C_OPEDTL_DCH = 0;

literal NMA$C_OPEDTL_TIM = 1;

literal NMA$C_OPEDTL_ORN = 2;

literal NMA$C_OPEDTL_ACT = 3;

literal NMA$C_OPEDTL_BAF = 4;

literal NMA$C_OPEDTL_RUN = 5;

literal NMA$C_OPEDTL_DSC = 6;

literal NMA$C_OPEDTL_FTL = 8;

literal NMA$C_OPEDTL_MNT = 11;

literal NMA$C_OPEDTL_LST = 12;

literal NMA$C_OPEDTL_THR = 13;

literal NMA$C_OPEDTL_TRB = 14;

literal NMA$C_OPEDTL_TRB = 14;

literal NMA$C_OPEDTL_STA = 15;

literal NMA$C_OPEDTL_STA = 15;
                                                                                                                                                                                                                                                                                     Data check
                                                                                                                                                                                                                                                                                     Timeout
                                                                                                                                                                                                                                                                                   Data overrun
Unit is active
Buffer allocation failure
                                                                                                                                                                                                                                                                                    Protocol running
Line disconnected
                                                                                                                                                                                                                                                                                    Fatal hardware error
                                                                                                                                                                                                                                                                                   DDCMP maintainance message received
Data lost due to buffer size mismatch
Threshold error
                                                                                                                                                                                                                                                                                    Tributary malfunction
                                                                                                                                                                                                                                                                                    DDCMP start message received
                                                                                                                                                                                                                                                              transmit underrun
                                                                                                                                                                                                                                                             receive underrun
                                                                                                                                                                                                                                                             FRMR received
                                                                    VMS-specific line counters
```

TA

DE

N 8 15-Sep-1984 23:06:17 15-Sep-1984 22:48:13 VAX-11 Bliss-32 V4.0-742 \$255\$DUA28:[NCP.SRC]NMATAIL.B32;1 1363 1364 1366 1366 1367 1368 1371 1375 1376 1376 1377 1378 1381 1382 Version: 'V04-000' NMATAIL.B32 Source to undeclare the macros required for the precompile of NMALIBRY.B32 so they do not appear in the library. UNDECLARE %QUOTE SEQUEST,
%QUOTE GET1ST,
%QUOTE GET2ND,
%QUOTE NUL2ND End of NMATAIL.B32

COMMAND QUALIFIERS

BLISS/LIB=LIB\$:NMALIBRY/LIS=LIS\$:NMALIBRY SRC\$:NMAHEAD+LIB\$:NMADEF+SRC\$:NMATAIL

; Run Time: 00:13.1 ; Elapsed Time: 00:21.7 ; Lines/CPU Min: 6324 ; Lexemes/CPU-Min: 26508 ; Memory Used: 147 pages ; Library Precompilation Complete

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